

**TRAINING SUPPORT PACKAGE
M1114 UAHMMWV**

NOTE: This 12 hour block of instruction is intended for personnel that possess a valid license for the HMMWV, and is geared towards unit instructors / master driver trainers. It is designed to familiarize personnel with the M1114 and is not intended to be a course to license operators. A copy of this TSP will remain with the personnel in attendance and contains all the information, material requirements and guidance for units to train and license their personnel afterwards.

TASK I:

Identify the difference between the M1025/1026 and the M1114 Series HMMWVs.

CONDITIONS:

Given a video presentation, this block of instruction an M1114, TM 9-2320-387-10 and a suitable training area

STANDARDS:

Identify all differences between the M1025/1026 and the M1114 that involve operator interaction.

TASK II:

Conduct PMCS on the M1114 UAHMMWV

CONDITIONS:

Given an M1114, operator's manual with PMCS checklist, suitable training area, DA FM 2404 or 1588 E, and access to POL products.

STANDARDS:

Conduct PMCS on the M1114 IAW the operator's manual without error to include the additional areas covered in this lesson

TASK III:

Operate the AN VIC-3, Vehicle Intercom System (VIS) (If applicable)

CONDITIONS:

Given 2 M1114 UAHMMWV complete with VIC-3, SINCGARS, Radios, headsets this lesson, and appropriate TMs

STANDARDS:

Set up the VIC 3 system so communications can be conducted between all crew stations and conduct a communications check with another vehicle.

TASK IV:

Hasty Evacuation of the M1114 UAHMMWV

CONDITIONS:

Given this block of instruction, a loaded M1114, training area with sufficient space to safely initiate and complete the task, and all required personal equipment (LCE, Weapons, Mask etc..)

STANDARDS:

Upon command of the team leader conduct a hasty evacuation of the M1114, ensuring all weapons, personal and required equipment are secured, a safe distance from the vehicle is obtained and security is established

TASK V:

Gain entry into the M1114

CONDITIONS:

Given this block of instruction, and an M1114

STANDARDS:

Explain the procedures to gain entry into the M1114

NOTE: This procedure will cause damage to the vehicle and will only be instructed as a talk through, no demonstration or performance of the task will be conducted.

TASK VI:

React to a Roll Over

CONDITIONS:

Given this block of instruction, an M1114, training area with sufficient space to safely simulate and complete the task, all team and personal equipment.

STANDARDS:

Upon command of (Roll Over) from any member of the team, all team members take immediate action (IAW this block of instruction, ARTEP 19-100-10-DRILL, and Unit SOP).

NOTE: This procedure will cause damage to the vehicle and will only be instructed as a talk through, no demonstration or performance of the task will be conducted

TASK VII:

Operate the winch on the M1114

CONDITIONS:

Given an M1114 equipped with a rear mounted hydraulic winch, suitable training area, and appropriate safety equipment

STANDARDS:

Explain the safety requirements, identify the different components required for winching, spool out at least 25 feet of cable, demonstrate hook up procedures for recovery, demonstrate recovery procedures, and re-spool the cable properly and secure the winch and components, without violating and safety requirements, or causing injury or damage to personnel or property.

TASK VIII:

Operate the M1114 during the vehicle Control test

CONDITIONS:

Given an M1114, with completed PMCS, and no deadline deficiencies, a suitable training area with sufficient space to conduct this task safely, a control test area established IAW AR 600-55 (Army Driver and Operator Standardization Program) and this lesson plan.

STANDARDS:

Operate the M1114 on the control test area, which consists of at a minimum the items listed in this lesson plan, meeting the standards as listed in each maneuver.

TASK IX:

Demonstrate proficiency and knowledge of the M1114

CONDITIONS:

Given the required blocks of instruction, a suitable are to take written examination, a written examination, and sufficient time to complete the examination

Given an M1114, with completed PMCS, equipped with Student Driver or Road Test signs, a Licensed M1114 instructor, and a designated route that includes side streets, main route and highway or equivalent travel

STANDARDS:

Achieve a score of at least 70 percent on the written examination. After passing the written examination operate the M1114 on the designated route, complying with all instructions from the instructor, obeying all traffic rules and regulations demonstrating the ability to operate the M1114 safely.

M1114



The M1114 is a 1 1/4 ton, 4X4 tactical vehicle designed for all types of roads as well as off terrain cross country driving. The vehicles 4 driving wheels are powered by a V-8 6.5 liter turbo charged diesel engine. The optional rear mounted self recovery winch can be used to self-recover or assist another vehicle within the winch limits.

- The purpose of the M1114 is to provide additional ballistic protection for the armament components, vehicles crew, and ammunition.**
- The M1114 will climb grades as steep as 40% or 22 degrees and traverse side slopes up to 30% or 17 degrees. The vehicle can ford up to 30 inches of water.**

Obvious Differences

- a. Ballistic Armor**
- b. Doors**
- c. Windows**
- d. Air Conditioning**
- e. Air Intake Extension**
- f. Rear mounted hydraulic winch**
- g. Fuel door**
- h. Windshield De-icer**
- i. 3 point seat belt**
- j. Vehicle Intercom System VIC 3**

Not So Obvious Differences

- a. Serpentine Belt**
- b. Brake system**
- c. Weapons Station**
- d. Transfer case**
- e. 4 speed automatic transmission**
- f. Engine**
- g. Engine cover (hood)**
- h. Vehicle weight**
- i. Window size**
- j. Ballistic seats**
- k. C-pillar door**

the purpose of the M1114 is to provide additional ballistic protection for the armament compartment, vehicle crew, and ammunition.



The crew compartment is protected against 7.62 mm AP rounds, 12 pound anti tank mine under the front tires, 4 pounds under the rear tires and fragmentations from Grenades and a



Doors

The doors weigh roughly 450 pounds each, so use care when opening and closing doors. Additional Armor adds additional stress. Crew doors have a double catch latching mechanism. Ensure doors are completely closed, locked and there is no gap between the vehicle body and the door



Open windows negate ballistic protection



The inside of the windows on the M114 are coated with a protective coating called a spall. This prevents the glass from fragmenting when the glass is struck by an object or round. Special care must be taken to ensure that the spall is not damaged.

CAUTION - TRANSPARENT ARMOR

Clean the interior surface of windshields and sidelites by the following procedure only:

1. Remove dust and loose abrasive particles using clean filtered air at 20 PSI maximum.
 2. Wash with mild detergent and warm water and dry using a clean soft lint-free cloth.
 3. Remove stubborn marks and stains using a soft cloth and equal parts by volume Isopropyl alcohol or Ethanol in water. Wash as in #2.
- DO NOT CLEAN BY ANY OTHER MEANS THAN SPECIFIED ABOVE.
 - DO NOT USE A "SCRAPER" OR OTHER OBJECT TO REMOVE FROST, SNOW, ICE, BUGS, MUD, ETC.
 - DO NOT APPLY STICKERS OR LABEL, SOLVENTS, OR ABRASIVE MATERIALS OR CLEANER

Part No. 46689/3 001

Cleaning Instructions



The M1114 is equipped with an air conditioning unit that is mounted on the left rear wheel well in the cargo compartment.



This is not a Fording Kit

During development studies from previous vehicles showed that an air filter extension added to the life of the vehicle air filter. The extension raises the air intake above the level of most dust



Winch capability: 6,200 to 9,000 pounds (each layer on the drum reduces pull)

The M1114 is equipped with a rear mounted hydraulic winch for self recovery or recovery of vehicles of equal or lesser weight



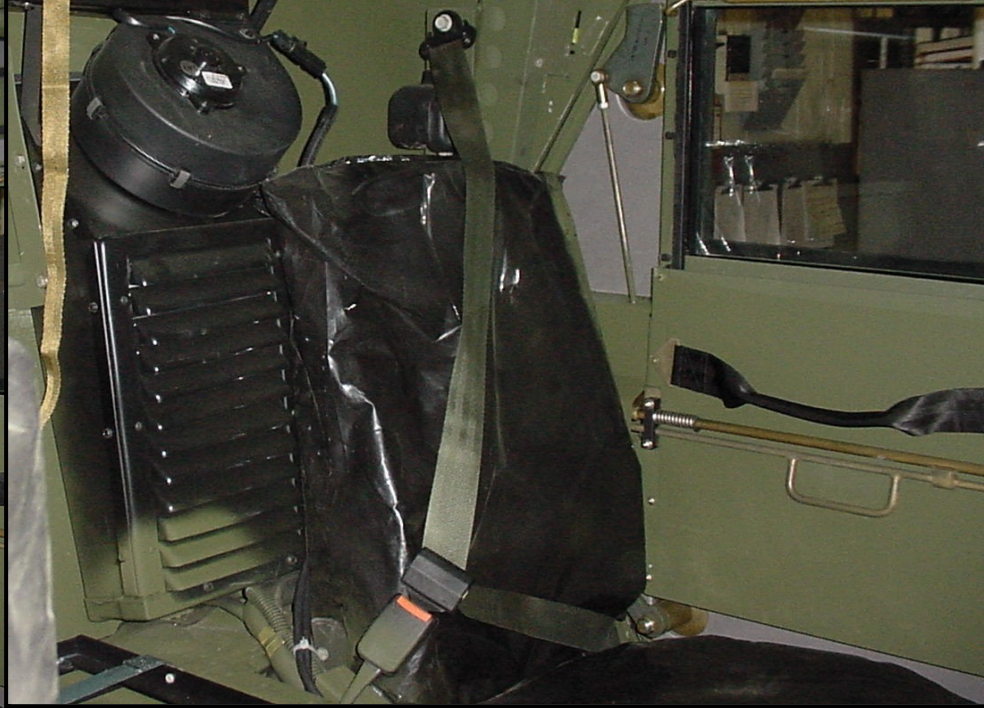
Fuel Door operation:



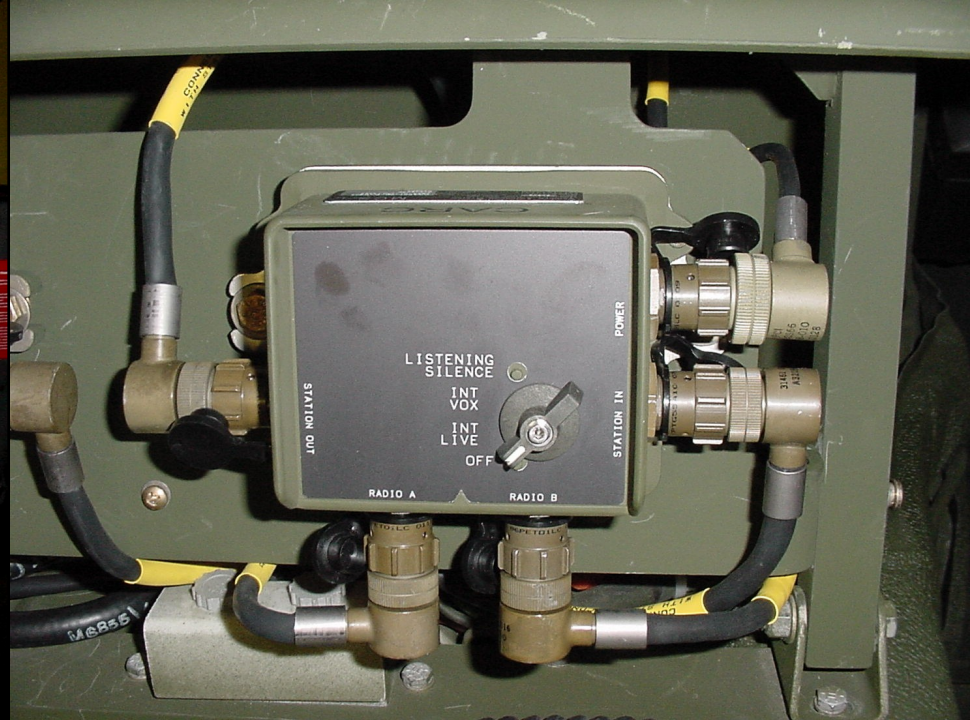


The M-1114 is equipped with a de-icer that is used when there is an ice build up on the exterior of the windows, or when ice starts to form on the windows when operating the vehicle.

Constant use of the de-icer could result in discoloration of the windows



The M1114 is equipped with a 3-point seat belt system. A lap belt and shoulder belt connected at the same point



The M1114 is equipped with a Vehicle Intercom System (VIC III). This system allows the crew to monitor the radio and converse with each other over a head set through a series of control boxes located at each crew station that are connected together

Serpentine Belt

The fan belt system was changed from multiple belts to one belt called a serpentine belt, which winds around all of the pulley systems and tension on the belt is maintained by a tension pulley, which eliminates the possibility of over tightening of the fan belts causing damage to belts and component mounting brackets.

I-23. SERVICE BRAKE SYSTEM OPERATION

The service brake system is an inboard-mounted, four-wheel, disc brake, hydraulically-assisted system. Major components of the braking system are:

HYDRO-BOOSTER - Converts hydraulic power from the steering pump to mechanical power to the master cylinder, providing power assist during braking.

MASTER CYLINDER/RESERVOIR - Stores brake fluid, and converts mechanical pedal pressure to hydraulic pressure.

PROPORTIONING VALVE - Provides balanced front-to-rear braking and activates brake warning lamp in case of brake system malfunction.

ACCUMULATOR - Stores hydraulic pressure for additional power-assisted braking in case of loss of pressure in steering system.



The M1114 weapons station is equipped with a hinged cover that can be opened and locked in an upright position in order to provide the gunner with some ballistic protection from the rear

Use care when opening and closing the covers. Never attempt to open or close cover when vehicle is in operation. Never rest hands or fingers in cover opening



The transfer case shift lever allows the operator to select four transfer case modes of operation and two gear ranges

High range should be used on all primary, secondary and off road travel

High Lock is used when operating off road.

Low provides an additional gear reduction to the drive train and is used when operating off road in rough terrain and the operator needs to maintain a constant slow speed, while at the same time provide lots of power to the wheels.

Neutral is used when the vehicle is disabled or must be towed

The M1114 has a 4 speed automatic transmission, which includes a park and an Overdrive position

Park: Used when the vehicle is parked:

Reverse: Used for backing With T case in H - 23 MPH
HL - 9 MPH, L - 9 MPH

Neutral: Vehicle stopped, parking brake applied

Overdrive: Used under normal driving and fording
T case in H - 55 MPH, HL - 55 MPH, L - 21 MPH

Drive: Used for hilly terrain and when towing
T case in H - 55 MPH, HL - 55 MPH, L - 21 MPH

2 (second): Used for hill climbing and engine braking
vehicle T case in H - 40 MPH, HL - 40 MPH, L - 15

1 (first): Used for maximum engine braking when
T case in H - 23 MPH, HL - 23 MPH, L - 9 MPH

Engine

The M1114 has a 6.5 liter General Motors turbo diesel engine that produces 190 HP at 3,400 RPM and 380 lb-ft of torque at 1,700 RPM.

A fan cutout switch was added to increase vehicle power.

The cut out switch turns off the fan when the gas pedal is fully depressed to the floorboard.

The engine is also equipped with header pipes which decrease back pressure and increase engine power.



The hood of the M-1114 is almost identical to that of the M1025/26. The main difference is only noticeable when the hood is opened. On the M-1114, the hood is hinged above the headlights and open up instead of up and forward

NOTE: The hood is a 2 person lift for opening, should not be stepped or walked on and has no ballistic qualities.



One of the least obvious things about the M-1114 is the weight.

Weight

Empty - 9,800 Lbs (4.5+ tons)

Loaded - 12,100 lbs (6+ tons)

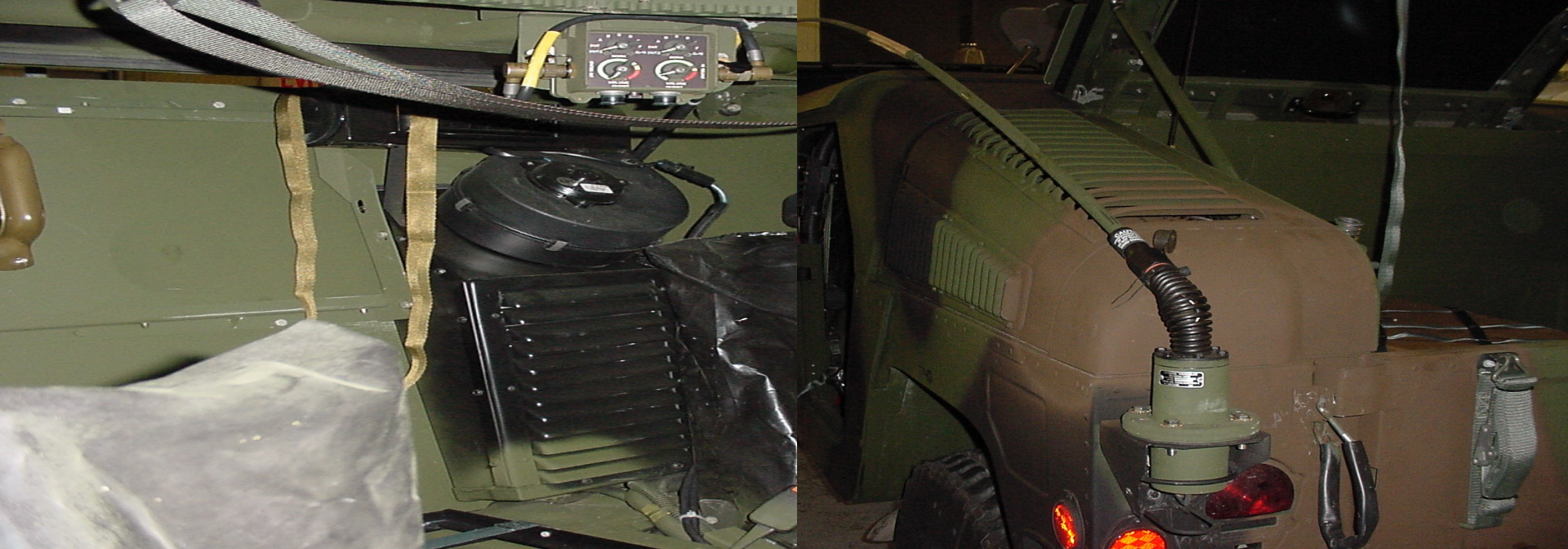


Windows are made from layers of glass that are bonded together with a compound and backed by a spall lining to provide ballistic protection to the crew.

Window size: The windows on the M1114 are thicker and slightly smaller than on the 1025/1026 series

Ballistic seats

The seats in the M-1114 do not have storage areas under them, as did the earlier HMMWVs. The M1114 seats are designed to absorb the energy generated during a mine blast in order to protect the occupants.



C-pillar door

The M1114 has a divider between the crew and storage compartments for ballistic protection to the crew compartment. There is a hole in the divider , which allows access to ammunition and items stored in the cargo area of the vehicle. The hole is covered by a sliding door, called a C-pillar door that can be opened to access the storage compartment from inside of the vehicle. The primary purpose of the door is to maintain ballistic integrity for the crew compartment. To operate the door: